

U.S. BUREAU OF RECLAMATION
NEPA CATEGORICAL EXCLUSION CHECKLIST

Project: **American Reinvestment and Recovery Act (ARRA) Drought Relief
Well Enhancements Project**

Date: **November 9, 2009**

Nature of Action: Under Title IV of the American Reinvestment and Recovery Act (ARRA) for drought relief, the Bureau of Reclamation will provide funding for the enhancement of 55 existing wells to the following Districts: Central California Irrigation District, Del Puerto Water District, Grasslands Water District, San Luis Water District, Tulare Irrigation District, West Stanislaus Irrigation District, and Westlands Water District.

Categories of Enhancements:

The following provides descriptions of the different categories of well enhancements. Attachment 1 identifies these categories (#1 through 8 below) and all of the wells in tabular format. A map and photos of the wells are provided in Attachments 2 and 3, respectively.

1. Inspect Casing

All 55 wells will need the casing inspected. To accomplish this, the motor, well head, pump column, and pump bowls must be removed from the well, if they are currently installed. The well must then be cleared of any stagnant oil and flushed out to provide cleaner water down-hole for a more clear inspection. After review of the inspection, the contractor can make a recommendation on the best way to clean/repair the well, if it can be done at all. There is minor ground disturbance at the site; the pumping unit is placed on wood supports when removed from the well hole, or placed on a flatbed truck/trailer for transport into a pump shop.

2. Pump/Motor in Place

All existing pumping units (includes bowls, column, discharge head, and motor) will be removed from the well so the casing can be inspected. After they are removed, they will be transported to an appropriate shop so they can be inspected, and repaired if necessary. If the unit is beyond repair a new one will be installed. Once all items identified above are completed, the pump company reinstalls the well into the shaft and test pumps the well for production and operation efficiency. At this point, the pumping unit is ready for hookup to the electrical panel or diesel supply and the discharge line and meter can now be attached to the pump. The following wells will require a pump/motor in place:

- All Tulare Wells except 16
- All Grassland Wells except #6, 8 and 11
- Central California Well #42
- San Luis Well #46
- All Del Puerto Wells except #56, 58 and 98
- Both West Stanislaus Wells #109 and 123
- Westlands Well #2

3. Needs Concrete

The following wells will require that a new concrete slab be poured to support the weight of the pumping unit and water column. The slabs will all be no more than 5 feet x 5 feet and approximately 8 inches thick and will be within the existing footprint of the wells. Soil compaction may be necessary depending on its inherent properties.

- Tulare Wells #2, 3 and 23
- Grasslands Wells #1, 3, 6 through 10, 12 and 13
- Del Puerto Wells #56, 58, 75, 93 and 98
- San Luis Well #46
- Westlands Wells #1 through 5

4. Needs Electrical Pole

An electrical pole is needed to be placed into the ground at the following well locations. Placement of the poles will require an approximately 8-inch to 12-inch diameter hole drilled into the ground about 4 ½ feet deep. The poles will be located within a 10 or 15 foot radius of the well.

- Grasslands Well #6
- Del Puerto Well #58 and 98
- Westlands Well #1

5. Needs Trench

The following wells require a trench for running electric conduit from the electric drop to the well to avoid hanging wires over the orchard. The trenches will be about 2 feet to 4 feet deep, 6 inches wide and 30 inches deep. The trench for Del Puerto Well #56 will be approximately 200 feet long through the orchard to the access road. The trench for Westlands Well #3 will be approximately 40 feet through the existing access road.

- Del Puerto Well #56
- Westlands Well #3

6. Needs Structure Removal

The following wells will need some structure removal, including any and all structures (i.e., sheds) covering the well. These structures may be wooden, chain link or other (see attached pictures for clarification). In most cases, the structures will not be replaced although some fencing may be replaced.

- Tulare Wells #8, 9, 15, 21 and 23
- Grasslands Well #7
- San Luis Well #46
- West Stanislaus Well #123

7. **Electrical Hook-up**

The following wells will require electrical hook ups, which require connection of the motor to the control panel. These hook ups are likely going to be relatively short (between 3 and 8 feet) and above ground.

- Tulare Well #16
- Grasslands Wells #1, 6, 8, 10, 12 and 13
- Central California Well #42
- Del Puerto Wells #56, 58, 75, 93 and 98
- Westlands Wells #1 through 4

8. **Remove Orchard Tree**

Only one well, Tulare Well #7, will require the removal of a tree from the nearby orchard. The tree is within the well owner's property and actually may only require trimming.

Exclusion Category: 516 DM 14, C (3) - Minor construction activities associated with authorized projects which correct unsatisfactory environmental conditions or which merely augment or supplement, or are enclosed within existing facilities.

Evaluation of Criteria for Categorical Exclusion

- | | | |
|----|--|--|
| 1. | This action or group of actions would have a significant effect on the quality of the human environment. | No <input checked="" type="checkbox"/> Uncertain ___ Yes ___ |
| 2. | This action or group of actions would involve unresolved conflicts concerning alternative uses of available resources. | No <input checked="" type="checkbox"/> Uncertain ___ Yes ___ |

Evaluation of Exceptions to Actions within Categorical Exclusion

- | | | |
|----|---|--|
| 1. | This action would have significant impacts on public health or safety. | No <input checked="" type="checkbox"/> Uncertain ___ Yes ___ |
| 2. | This action would have significant impacts on natural resources and unique geographic characteristics such as historic or cultural resources; park, recreation or refuge lands; wilderness areas; wetlands, wild or scenic rivers, rivers placed on the nationwide river inventory, floodplains, national natural landmarks; sole or principal drinking water aquifers; migratory birds; prime or unique farmlands; and other ecologically significant or critical areas. (Same as appendix 516-DM-2, appendix 2 part 2.2). | No <input checked="" type="checkbox"/> Uncertain ___ Yes ___ |

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|-----|--|--|
| 3. | This action will have highly controversial environmental effects. | No <input checked="" type="checkbox"/> Uncertain <input type="checkbox"/> Yes <input type="checkbox"/> |
| 4. | This action will have highly uncertain or potentially significant environmental effects or involve unique or unknown environmental risk. | No <input checked="" type="checkbox"/> Uncertain <input type="checkbox"/> Yes <input type="checkbox"/> |
| 5. | This action will establish a precedent for future actions or represent a decision in principle about future actions with potentially significant environmental effects. | No <input checked="" type="checkbox"/> Uncertain <input type="checkbox"/> Yes <input type="checkbox"/> |
| 6. | This action is related to other actions with individually insignificant but cumulative significant environmental effects. | No <input checked="" type="checkbox"/> Uncertain <input type="checkbox"/> Yes <input type="checkbox"/> |
| 7. | This action will significantly affect properties listed or eligible for listing in the National Register of Historical Places. | No <input checked="" type="checkbox"/> Uncertain <input type="checkbox"/> Yes <input type="checkbox"/> |
| 8. | This action will significantly affect a species listed or proposed to be listed as endangered or threatened, or Critical Habitat for these species. | No <input checked="" type="checkbox"/> Uncertain <input type="checkbox"/> Yes <input type="checkbox"/> |
| 9. | This action threatens to violate Federal, state, local, executive or Secretarial orders, or tribal law or requirements imposed for protection of the environment. | No <input checked="" type="checkbox"/> Uncertain <input type="checkbox"/> Yes <input type="checkbox"/> |
| 10. | This action will affect Indian Trust Assets. | No <input checked="" type="checkbox"/> Uncertain <input type="checkbox"/> Yes <input type="checkbox"/> |
| 11. | This action will limit access to and ceremonial use of Indian sacred sites on Federal lands by Indian religious practitioners or significantly adversely affect the physical integrity of such sacred sites. | No <input checked="" type="checkbox"/> Uncertain <input type="checkbox"/> Yes <input type="checkbox"/> |
| 12. | This action will have a disproportionately high and adverse effect on minority or low-income populations. | No <input checked="" type="checkbox"/> Uncertain <input type="checkbox"/> Yes <input type="checkbox"/> |
| 13. | This action will contribute to the introduction, continued existence, or spread of noxious weeds or non-native species known to occur in the area or actions that may promote the introduction, growth, or expansion of the range of such species. | No <input checked="" type="checkbox"/> Uncertain <input type="checkbox"/> Yes <input type="checkbox"/> |

NEPA Action: Categorical Exclusion ☒ EA ☐ EIS ☐

Environmental commitments, explanation, and/or remarks:

There is minor ground disturbance associated with the well enhancement projects; therefore, the proposed action would have no effect on species or critical habitat protected by the federal Endangered Species Act. However, construction personnel should be aware of the potential presence of San Joaquin kit fox. Any reported sightings of kit fox should be reported to the U.S. Fish and Wildlife Service and California Department of Fish and Game. See Attachment 4, Avoidance and Minimization Measures for San Joaquin kit fox, for specific measures that will be incorporated into this project to minimize take of this listed species (Exhibit A). Reclamation entered into consultation with the California State Historic Preservation Officer (SHPO) on October 21, 2009 seeking their concurrence on a finding of no adverse effect to historic properties. The SHPO concurred with Reclamation's finding on October 29, 2009; therefore, the proposed action has no potential to affect historic properties pursuant to 36 CFR Part 800.3(a)(1). The proposed action also does not affect Indian Trust Assets (ITA); the nearest ITA, Santa Rosa Rancheria, is approximately 29 miles east southeast of the project location.

Preparer: Shelly Hatley 11/9/09
Natural Resource Specialist Date

Concurrence with Item 7: Ally J. K. 11/9/09
Regional Archeologist Date

Concurrence with Item 10: Patricia L. Rivera 11/9/2009
ITA Designee Date

Concurrence: Tracy L. 11/9/09
Program Manager Date

Approval: Robert M. L. 11/9/09
Regional Resources Manager Date

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ATTACHMENT 1
WELL ENHANCEMENTS PROJECT DESCRIPTION TABLE

USBR #	Well	Name/ID	Inspect Casing	Pump/Motor In Place	Needs Concrete	Needs Electrical Pole	Needs Trench	Needs Shed	Removed	Electrical Hook-up	Remove Trees from Orchard
USBR #1	1.1	Machado	X	X	X						
	1.2	Machado	X	X	X						
	1.3	Waite	X	X	X						
	1.4	Waite	X	X	X						
	1.5	Curt	X	X	X						
	1.6	Curt	X	X	X						
	1.7	Van Groningen	X	X	X						
	1.8	Three D Properties	X	X	X						
	1.9	B&E	X	X	X						
	1.10	Thomas	X	X	X						
	1.11	SBS	X	X	X						
	1.12	SBS	X	X	X						
	1.13	Borres	X	X	X						
	1.14	Borres	X	X	X						
	1.15	Borres	X	X	X						
	1.16	Borres	X	X	X						
	1.17	McClure	X	X	X						
	1.18	DeJong	X	X	X						
	1.19	DeJong	X	X	X						
USBR #10	1.22	Feetel Bros	X	X	X						
	1.23	Clarking	X	X	X						
	1.24	Picasso	X	X	X						
	1.25	Picasso	X	X	X						
	1.26	JK Dairy	X	X	X						
	1.10.5	Thomas	X	X	X						
	10.1	Naldi	X	X	X						
	10.2	Ornellas #1	X	X	X						
	10.3	Ornellas #2	X	X	X						
	10.4	Venzke	X	X	X						
	10.5	Ornellas #4	X	X	X						
	10.6	Ornellas #5	X	X	X						
	10.7	Industrial City	X	X	X						
	10.8	Rubino	X	X	X						
	10.9	Geis	X	X	X						
	10.10	Reisler	X	X	X						
	10.11	Sartre #1	X	X	X						
	10.12	Souza	X	X	X						
	10.13	56031085	X	X	X						
USBR #14	14.1	SWD	X	X	X						
	14.2	SWD	X	X	X						
	14.3	Del Puerto	X	X	X						
	14.4	Del Puerto	X	X	X						
	14.5	Del Puerto	X	X	X						
	14.6	Del Puerto	X	X	X						
	14.7	Del Puerto	X	X	X						
	14.8	Del Puerto	X	X	X						
	14.9	Del Puerto	X	X	X						
	14.10	Del Puerto	X	X	X						
	14.11	Del Puerto	X	X	X						
	14.12	Del Puerto	X	X	X						
	14.13	Del Puerto	X	X	X						
	14.14	Del Puerto	X	X	X						
	14.15	Del Puerto	X	X	X						
	14.16	Del Puerto	X	X	X						
	14.17	Del Puerto	X	X	X						
	14.18	Del Puerto	X	X	X						
	14.19	Del Puerto	X	X	X						
USBR #15	15.1	141422N08	X	X	X						
	15.2	151435B01	X	X	X						
	15.3	161413B01	X	X	X						
	15.4	151617E01	X	X	X						
	15.5	161604N02	X	X	X						
	15.6	151604N02	X	X	X						
	15.7	151604N02	X	X	X						
	15.8	151604N02	X	X	X						
	15.9	151604N02	X	X	X						
	15.10	151604N02	X	X	X						
	15.11	151604N02	X	X	X						
	15.12	151604N02	X	X	X						
	15.13	151604N02	X	X	X						
	15.14	151604N02	X	X	X						
	15.15	151604N02	X	X	X						
	15.16	151604N02	X	X	X						
	15.17	151604N02	X	X	X						
	15.18	151604N02	X	X	X						
	15.19	151604N02	X	X	X						

Notes

- All sites require inspection of casing. Depending what is found different methods may be employed to repair.
- Shed refers to any and all structures covering well. May be wooden, chain link or other, see pictures for clarification.
- Requires connection of motor to electric meter. Likely short, above ground wires.
- Trees belong to well owner as part of orchard. May require only trimming.
- Wells without pump/motor receive new equipment. If pump/motor is in place it will be removed, inspected and either repaired or replaced.

Well 1.14 is no longer being enhanced
Well 1.21 has 2 possible locations, further clarifications needed.
No pictures available of actual well site

ATTACHMENT 2
WELL ENHANCEMENTS LOCATIONS MAP

ATTACHMENT 3
WELL ENHANCEMENTS PHOTOS

Central California Well #42



San Luis Well #46



West Stanislaus Well #109



West Stanislaus Well #123



West Stanislaus Well #123



Del Puerto Well #55a



Del Puerto Well #56



Del Puerto Well #58



Del Puerto Well #75



Del Puerto Well #76



Del Puerto Well #93



Del Puerto Well #98



Grassland Well #1



Grassland Well #2



Grasslands Well #3



Grassland Well #4



Grassland Well #5



Grassland Well #6



Grassland Well #7



Grassland Well #8



Grassland Well #9



Grassland Well #10



Grassland Well #11



Grassland Well #11



Grassland Well #12



Grassland Well #13



Tulare Well #1



Tulare Well #2



Tulare Well #3



Tulare Well #4



Tulare Well #5



Tulare Well #6



Tulare Well #7



Tulare Well #8



Tulare Well #9



Tulare Well #10



Tulare Well #10.5



Tulare Well #11



Tulare Well #12



Tulare Well #13



Tulare Well #15



Tulare Well #16



Tulare Well #17



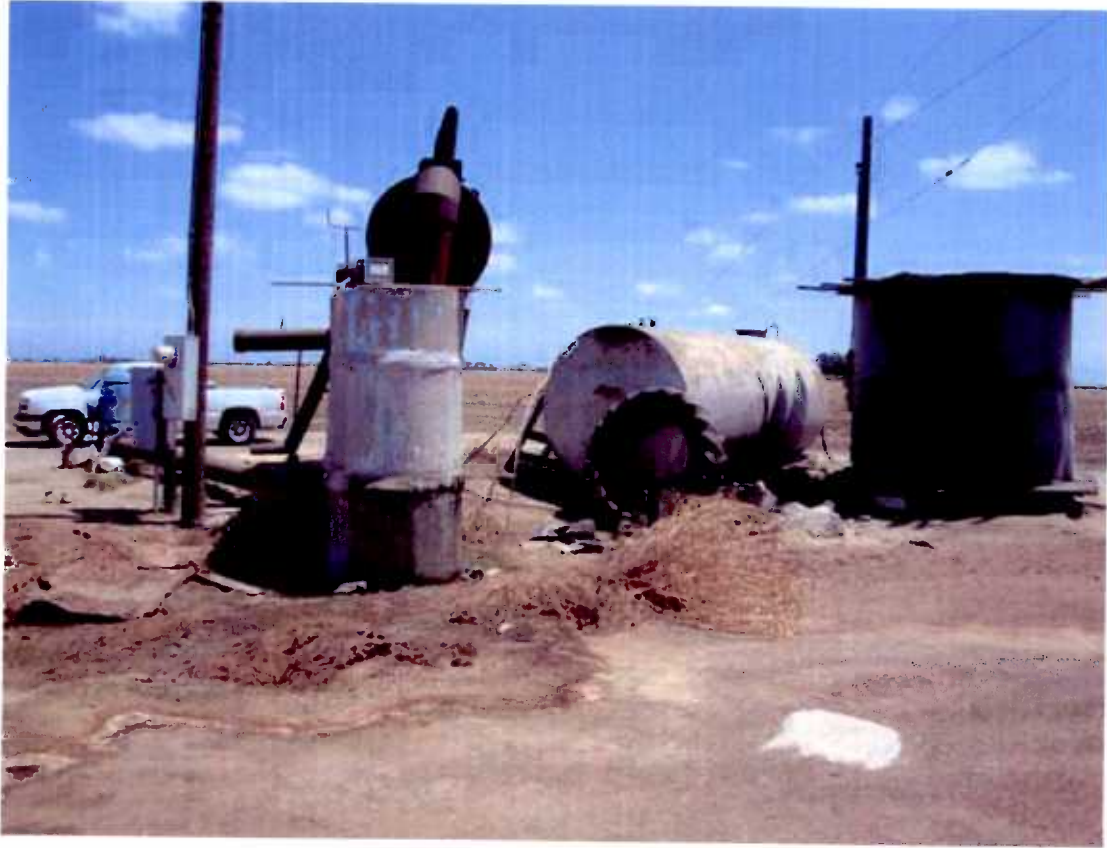
Tulare Well #18



Tulare Well #19



Tulare Well #20



Tulare Well #21



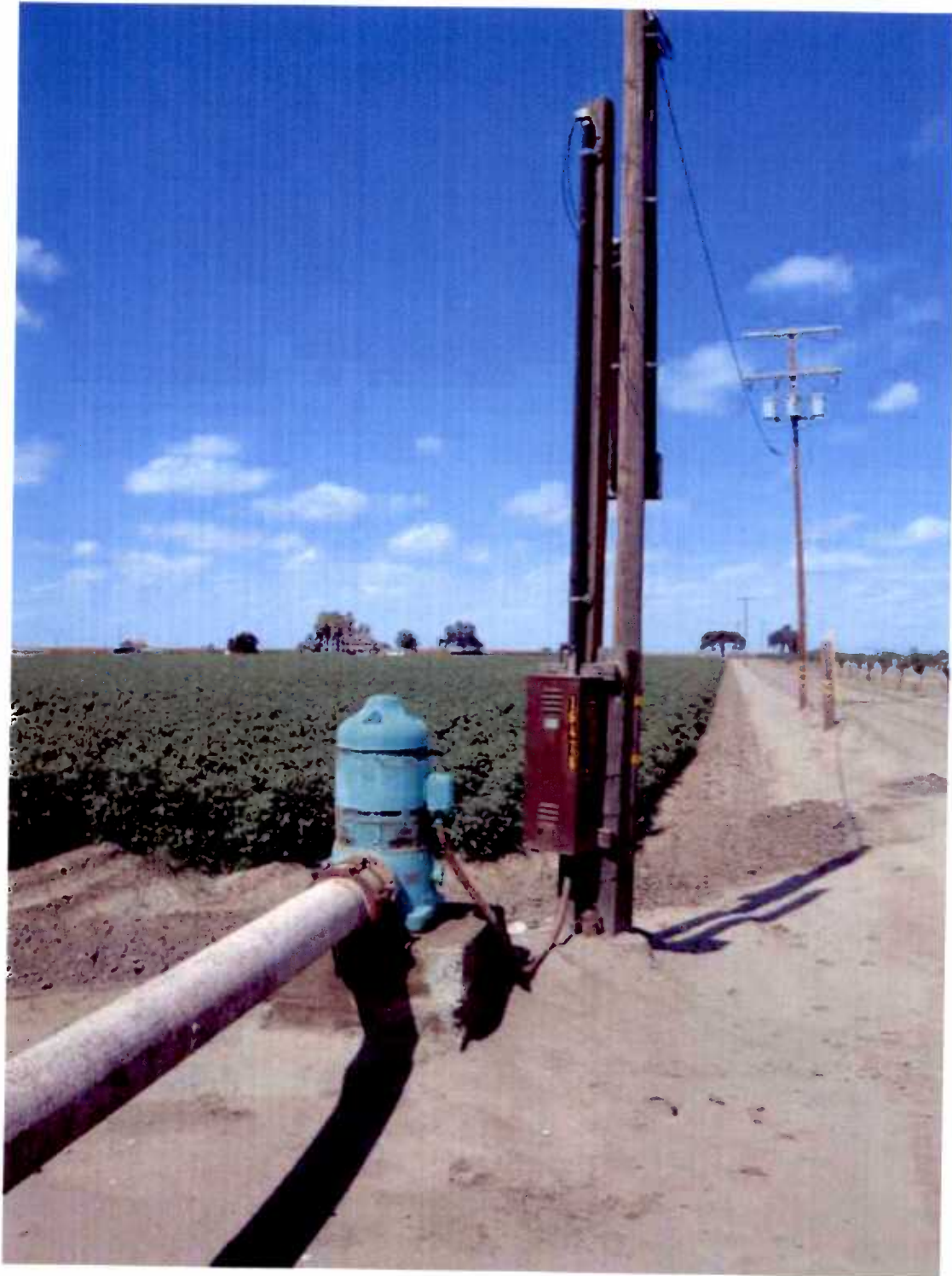
Tulare Well #22



Tulare Well #23



Tulare Well #24



Tulare Well #25



Tulare Well #26



Westlands Well #1



Westlands Well #2



Westlands Well #3



Westlands Well #4



Westlands Well #5



ATTACHMENT 4
SAN JOAQUIN KIT FOX AVOIDANCE & MINIMIZATION MEASURES



Pictured above is a San Joaquin kit fox (*Vulpes macrotus mutica*) whose movements and habits are being monitored by researchers in an effort to gain information on this endangered species.

Status: The San Joaquin kit fox is listed as "endangered" by the United States Fish and Wildlife Service (USFWS), and as "threatened" by the California Department of Fish and Game (CDFG). Both state and federal law prohibit Take and possession of this species.

Causes of Decline: The principal cause of decline for this species is loss of its valley grassland habitat to agricultural and other land development. Causes of death to individual kit fox, other than natural causes such as predation and disease, include incidental poisoning from pest control programs and illegal shooting and trapping. Kit fox often cross roads and are vulnerable to traffic mortality. In fact, road kills represent the largest source of reported mortality for the San Joaquin kit fox.

Where Found: Although low in numbers, the San Joaquin kit fox occurs throughout the San Joaquin Valley from the Tehachapi Mountain foothills surrounding the southern end of the valley, north to Contra Costa County. Preferred habitat is the valley floor with grassland vegetation or nearby rolling hills largely devoid of trees and brush.

Distinguishing Characteristics: The kit fox is the smallest of North American foxes. The San Joaquin kit fox stands only nine to twelve inches tall, and weighs about 5 lbs. It is distinguished by its small size and buff-tan coloration. Large ears, long legs, and black-tipped tail are readily recognized. Coyotes and other foxes in the area are larger than the kit fox. The red fox is dark in coloration and has a white-tipped tail. Grey fox are larger with short legs, are more uniformly steel gray in coloration, and have a band of black hair along the top of the tail.

What You Can Do: Be aware of the potential presence of the kit fox. Do not throw food scraps or leave trash lying about. If a kit fox is sighted in the work area, or, if a dead or injured kit fox is encountered, a Bureau of Reclamation biologist (559/487-5116) must be notified immediately. Reports of any other sightings of kit fox will also be appreciated.

Take Avoidance Measures

The following are CDFG and USFWS-standardized Take Avoidance Measures that shall be incorporated into this project:

In order to minimize the take of listed species, the following measures should be implemented:

1. Construction during evening hours (when kit foxes and kangaroo rats are active and most vulnerable to vehicle or equipment-induced injury or mortality) will be avoided where possible.
2. To prevent entrapment of endangered species or other animals during construction, all excavated, steep-walled holes or trenches in excess of two feet in depth shall be covered at the close of each working day by plywood or similar materials, or provided with one or more escape ramps which shall not be greater than 1000' apart. Trenches shall also be inspected for entrapped wildlife each morning prior to onset of construction and immediately prior to the end of each working day. Before such holes or trenches are filled, they shall be thoroughly inspected for entrapped animals by a designated inspector or qualified biologist. Any animals so discovered shall be allowed to escape before construction activities resume, or removed from the trench or hole by a qualified biologist.
3. All construction pipes, culverts, or similar structures with a diameter of four inches or greater that are stored at a construction site for one or more overnight periods shall be thoroughly inspected for trapped kit foxes before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If during construction a kit fox is discovered inside a pipe, that section of pipe will not be moved, except at the direction of a Department of Fish and Game Biologist or until the kit fox has escaped.
4. All food-related trash items such as wrappers, cans, bottles, and food scraps generated both during construction and during subsequent facility operation shall be disposed of in closed containers and removed daily from the site. Food items may attract kit foxes onto a project site, consequently exposing such animals to increased risk of injury or mortality. No deliberate feeding of wildlife shall be allowed.
5. Any employee that inadvertently kills or injures a San Joaquin kit fox or blunt-nosed leopard lizard, San Joaquin antelope squirrel or Tipton kangaroo rat, or who finds any such animal dead, injured, or entrapped shall be required to report the incident immediately to the on-site supervisor or biologist. In the case of entrapped animals, escape ramps or structures shall be installed immediately if possible to allow the subject animal(s) to escape unimpeded. In the event that such observations are of injured or dead animals, BOR shall notify the USFWS and CDFG in writing within three working days of the finding of any such animal(s). Notification shall include the date, time, location, and circumstances of the incident. USFWS contacts for this information will be Ms. Susan Moore (916) 414-6702. The CDFG contact will be Mr. Ron Schlorff (916) 654-4262. Any kit fox or leopard lizard found dead or injured shall be turned over immediately to the FWS for care, analysis, or disposition.
6. All known and potential San Joaquin kit fox dens (See Appendix I for definitions) within the construction zone or kit fox dens outside the construction zone if otherwise authorized, shall be excavated pursuant

to conditions described below prior to the onset of construction activities or otherwise protected as specified by FWS. Excavation of known kit fox dens should not occur until appropriate consultations are completed and then BOR shall notify USFWS and CDFG of the intent to destroy the subject den or burrow(s) and the reasons why alternate courses of action are not possible. The USFWS may concur or recommend alternate methods to reduce impacts to the den or burrow(s).

Destruction of a potential kit fox den may proceed without notification if no current or previous use of the den by kit foxes is known, as determined by a qualified biologist. However, if during excavation any potential den is determined to be a currently or previously used kit fox den (e.g., if kit fox sign is found inside), CDFG and USFWS will be notified immediately of the change in status.

7. In the event that CDFG and USFWS concurs that a known San Joaquin kit fox den will be unavoidably destroyed by planned project action, the following procedures shall be implemented:
 - * Prior to construction, the subject den shall be carefully excavated using hand tools. Excavation will be performed by either a qualified biologist or under the direct supervision of a biologist to ensure that no animals are trapped or injured. Any kit foxes in residence shall be allowed to escape unimpeded.
 - * The den shall be completely excavated and then refilled and compacted to prevent future use of the site by resident animals.
 - * Documentation of the den loss shall be conveyed in writing to the USFWS, Sacramento Field Office, and to CDFG Fresno and Sacramento Offices.
8. Signs shall be posted and/or fencing shall be placed around work sites to restrict access of vehicles and equipment unrelated to site operations.
9. The South-Central California Area Office shall be informed of upcoming construction activities and avoidance measures to be taken. A qualified biologist may be required to be on the project site during initial ground disturbance activities at each site.
10. All project-related vehicle traffic will be restricted to established roads, construction areas, storage areas, and staging and parking areas. Off-road traffic outside of designated project areas will be prohibited.
11. An employee orientation program for all construction and operation personnel shall be conducted and will consist of a brief consultation in which persons knowledgeable in endangered species biology and legislative protection explain endangered species concerns. The education program will include a discussion of San Joaquin kit fox, Tipton kangaroo rat, and blunt-nosed leopard lizard biology, the habitat needs of these species, their status under the Endangered Species Act, and measures being taken for the protection of these species and their habitats as a part of the project. A fact sheet conveying this information will also be prepared for distribution to all employees.
12. Project-related vehicles shall observe a 25 MPH speed limit in all project areas except on County roads and State and Federal highways.

13. Use of rodenticides and herbicides on the sites shall be permitted only if it is part of a CDFG and USFWS approved management plan or unless such use is otherwise approved on a case-by-case basis. This is necessary to prevent primary or secondary poisoning of endangered species utilizing adjacent habitats, and the depletion of prey upon which kit foxes depend.
14. Boundaries of approved work areas shall be clearly delineated by stakes, flagging, and/or rope or cord to minimize inadvertent degradation or loss of adjacent wildlife habitats during facility construction.

Appendix I—Definitions for Kit Fox Avoidance and Minimization Measures

“Take” - Section 9 of the Endangered Species Act of 1973, as amended (Act) prohibits the “take” of any federally listed endangered species by any person (an individual, corporation, partnership, trust, association, etc.) subject to the jurisdiction of the United States. As defined in the Act, take means “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct.” Thus, not only is a listed animal protected from activities such as hunting, but also from actions that damage or destroy its habitat.

“Harm” - is defined in the Act to include significant habitat modification or degradation that results in death or injury to a listed species by interfering with essential behavioral patterns such as breeding, foraging, or resting.

“Harass” - is defined in the Act as actions that create the likelihood of injury to listed species to such an extent as to disrupt normal behavior patterns which include, but are not limited to, breeding, foraging, or resting.

“Cumulative Effects” - The cumulative or incremental environmental impact of the effect of the action together with impacts of past, present, and reasonably foreseeable future actions. The action area includes all areas to be affected directly or indirectly by the action, not merely the immediate area involved in the action.

“Dens” - San Joaquin kit fox dens may be located in areas of low, moderate, or steep topography. Den characteristics are listed below, however, the specific characteristics of individual dens may vary and occupied dens may lack some or all of these features. Therefore, caution must be exercised in determining the status of any den. Typical dens may include the following: (1) one or more entrances that are approximately 5 to 8 inches in diameter; (2) dirt berms adjacent to the entrances; (3) kit fox tracks, scat, or prey remains in the vicinity of the den; (4) matted vegetation adjacent to the den entrances; and (5) manmade features such as culverts, pipes, and canal banks.

“Known den” - Any existing natural den or manmade structure that is used or has been used at any time in the past by a San Joaquin kit fox. Evidence of use may include historical records, past or current radiotelemetry or spotlighting data, kit fox sign such as tracks, scat, and/or prey remains, or other reasonable proof that a given den is being or has been used by a kit fox. The Service discourages use of the terms “active” and “inactive” when referring to any kit fox den because a great percentage of occupied dens show no evidence of use, and because kit foxes change dens often, with the result that the status of a given den may change frequently and abruptly.

“Potential Den” - Any subterranean hole within the species' range that has entrances of appropriate dimensions for which available evidence is insufficient to conclude that it is being used or has been used by a kit fox. Potential dens shall include the following: (1) any suitable subterranean hole; or (2) any den or burrow of another species (e.g., coyote, badger, red fox, or ground squirrel) that otherwise has appropriate characteristics for kit fox use.

“Natal or Pupping Den” - Any den used by kit foxes to whelp and/or rear their pups.

Natal/pupping dens may be larger with more numerous entrances than dens occupied exclusively by adults. These dens typically have more kit fox tracks, scat, and prey remains in the vicinity of the den, and may have a broader apron of matted dirt and/or vegetation at one or more entrances. A natal den, defined as a den in which kit fox pups are actually whelped but not necessarily reared, is a more restrictive version of the pupping den. In practice, however, it is difficult to distinguish the two, therefore, for purposes of this definition, either term applies.

“Atypical Den” - Any manmade structure which has been or is being occupied by a San Joaquin kit fox. Atypical dens may include pipes, culverts, and diggings beneath concrete slabs and buildings.

“Habitat” - Habitat refers to the resources and conditions present in an area that: (1) produces occupancy (including foraging areas and dispersal corridors, etc.); or (2) provides potential for occupancy (e.g., listed species who are so reduced in numbers that they cannot use some areas of habitat, but would do so if their numbers were greater and/or they had the opportunity); or (3) was historically occupied; and (4) are important to the survival, reproduction, and/or recovery of the species.

“Habitat Quality” - The quality of the habitat should be considered a continuous variable, ranging from low to medium to high quality habitats, based on the ability to provide resources for survival, reproduction, and recovery,

respectively.

“Habitat Value” - The value of the habitat refers to the importance of the habitat to the recovery of kit foxes. This should be considered a continuum with indefinite boundaries or acreage: low, medium, and high.